

CHAPTER 3

RESEARCH METHODOLOGY

In this chapter described the steps to be taken for the research. The steps are executed one by one and at the end of the study will be obtained the comparison data. From the comparison data it can be concluded where the most accurate hidden layer for the stock prediction.

Step research to be conducted by researchers :

1. Studying journals and books

Journals and books were studied in advance to support the research. There are 8 journals studied and 2 books. From the various journals researchers will study and try to apply to this research while provide different point of view that can give a different picture of the process on the neural network.

2. Analysis of problem

Analyze all the problems that will be solved by the program. The analysis result will be used to make the project design, so the implementation will be in line with the main goal and remain efficient to meet the agreed deadlines.

3. Data retrieval and coding process

In this study the stock price that will be used is PT Telekomunikasi Indonesia Tbk (TLKM), PT HM Sampoerna Tbk (HMSP), PT Bank Central Asia Tbk (BBCA), PT Bank Negara Indonesia Tbk (BBNI) and PT Astra International Tbk (ASII). The stocks are selected for entering the category of five major stock in Indonesia. Stock market is open from Monday to Friday so that in 12 months ranging from January – Desember 2016 will be obtained as many as 151 data and the total of 5 companies is 755 data. From 12 months data obtained will be used for training and testing data. Data retrieval process will

use webscraping method using Java HTML parser (JSOUP). Once obtained the data will be stored in a text file. The process of coding will use the java programming language

4. Research reports

This step reports the implementation process that can provide predictions for the price of a stock. Predicted price will be collected and compared. This is also reported which number of hidden layers cell can give the most accurate accuracy.

